

REMARKS

In accordance with the foregoing, claims 36, 53 and 55 have been cancelled. The specification and claims 27-29, 37, 38, 43-46 and 54 have been amended, and new claims 56-61 have been added. Claims 27-29, 32, 34, 35, 37-52, 54 and 56-61 are pending and under consideration.

Claims 27, 29, 34, 35, 38, 39, 42, 46, 47 and 52 are rejected under 35 USC §102(b) as being anticipated by US Patent No. 4,546,534 to Nicholas. The remaining claims are rejected as being obvious over Nicholas in view of various secondary references.

Nicholas discloses a method of forming a semiconductor device using first and second masking layers. The Examiner cites reference numerals 20 and 21 in Fig. 2 of Nicholas for the claimed metallization layers. As described at column 6, lines 3-6 of the reference, a conventional lithographic and etching treatment may be used to define the metal interconnection patterns 20, 21 and 22, which are formed on the thick oxide layer 15.

Independent claims 27 and 46 have been amended as follows:

27. (Currently Amended) A system comprising:
 an electrical component provided with at least one electrical contact surface;
 an electrical insulating layer, which is disposed on the component, the electrical insulating layer having an opening to expose and surround a portion of the contact surface, ~~wherein the insulating layer having a lateral surface that delimits the opening, the electrical insulating layer being formed from at least first and second partial insulating layers having openings with different widths such that a stepped structure is formed from the contact surface to the first partial insulating layer and from the first partial insulating layer to the second partial insulating layer, the lateral surface being formed as part of the stepped structure;~~ and
 an electrical connecting lead for electrically contacting the contact surface of the component, the electrical connecting lead comprising a first and second metallization layers, the first metallization layer being located on the lateral surface, such that the first metallization layer meets the contact surface at an angle less than 90 degrees, the second metallization layer being formed of a material different from the first metallization layer, the second metallization layer being formed on the insulating layer and outside of the opening in the insulating layer, the second metallization layer having a thickness greater than that of the first metallization layer.

46. (Currently Amended) A method for producing a system comprising:
 providing a component with an electrical contact surface;
 producing an insulating layer on the component, the insulating layer having an opening to expose and surround a portion of the contact surface of the component so that the contact surface is freely accessible, the insulating layer having a lateral surface that defines the opening;
 and

~~locating forming a metallization layer of a connecting lead on the lateral surface of the insulating layer in such a way that the metallization layer meets the contact surface at an angle less than 90 degrees, wherein;~~

~~the insulating layer is produced by forming at least first and second partial insulating layers having openings with different widths such that a stepped structure is formed from the~~

~~contact surface to the first partial insulating layer and from the first partial insulating layer to the second partial insulating layer, the lateral surface being formed as part of the stepped structure.~~
after forming the metallization layer, masking the opening in the insulating layer; and forming a section of the connecting lead separately from the metallization layer, the section of the connecting lead being produced on the insulating layer while the opening in the insulating layer is masked such that the section of the connecting lead is formed outside of the opening in the insulating layer, the section of the connecting lead having a thickness which exceeds that of the metallization layer.

Antecedent support for these claim changes can be found in the original claims and paragraphs [0044], [0047] and [0051] of the application, for example. Although the claims are not limited to what is shown in the drawings, Fig. 8 shows a relatively thin metallization layer 30 formed on the power semiconductor component 2. An opening 42 in the insulating layer 4 is masked with a layer 37. Then a relatively thick metal layer 36 is formed outside of the opening 42 in the insulating layer 4. Nicholas discloses only a single metallic interconnection layer.

The Examiner cites US Patent No. 4,988,412 to Liu et al. for the two different metallic elements. However, in Liu et al., the thicker metal layer covers the contact surface. To the contrary, both independent claims 27 and 46 clearly require the thicker metallic element to be formed outside of the opening in the insulating layer. Referring specifically to claim 46, this claim requires that the opening in the insulating layer be masked. In Lui et al., the thicker metal layer clearly extends through the opening to cover the contact surface. Accordingly, there is no suggestion to mask the opening. None of the other references compensate for these deficiencies in Nicholas and Liu et al.

With regard to new independent claim 58, this claim is directed to first and second partial insulating layers. The Examiner asserts that Nicholas discloses two separate insulating layers. The Examiner appears to be correct that layer 15 is formed in two separate steps. Based on Fig. 14 of the reference, it appears that the same material is used. The Examiner also asserts that Nicholas discloses sloped portions. These sloped portions appear to be caused by the gate oxide 7 being formed separately from the field oxide 2. Compare Figs. 7 and 8.

To emphasize that the first and second partial insulating layers are distinct, new independent claim 58 recites laminating the first partial insulating layer, and laminating the second partial insulating layer. The insulating layers in Nicholas are oxides, which are grown on the materials or deposited from a gas phase. Nicholas does not disclose or suggest two distinct insulating layers, which are formed by lamination, as clearly required by claim 58. The Examiner cites Fig. 15 of Nicholas for a lamination step. However, it should be very clear that any

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lamination disclosed in Nicholas is different from separately laminating first and second partial insulating layers, as now claimed. The other references are similarly deficient.

In view of the foregoing amendments and remarks, it is submitted that the prior art rejection should be withdrawn.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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